

We claim:

1. A driving circuit that drives a display panel having an electrode, comprising:

5 a recovering capacitive element that recovers a charge from the electrode of the display panel;

a switcher connected to said recovering capacitive element;

an interconnector connected to said switcher; and

10 a frequency reducer connected in parallel with said switcher that is operable to reduce a resonance frequency of an LC resonance resulting from a parasitic capacitance of said switcher and an inductance component of said interconnector, wherein one of said charge is supplied to the electrode of the display panel from said recovering capacitive element through said switcher and said interconnector, and said charge is recovered to said recovering capacitive element from the electrode of the display panel.

2. A driving circuit that drives a display panel having an electrode, comprising:

20 a recovering capacitive element that recovers a charge from the electrode of the display panel;

a switcher connected to said recovering capacitive element;

an interconnector connected to said switcher; and

a frequency reducer connected in parallel with said switcher that is operable

to reduce a resonance frequency of an LC resonance resulting from a parasitic capacitance of said switcher and an inductance component of said interconnector to a level less than 30MHz, wherein one of a charge is supplied to the electrode of the display panel from said recovering capacitive element through said switcher and said interconnector, and said charge is recovered to said recovering capacitive element from the electrode of the display panel.

3. A driving circuit that drives a display panel having an electrode, comprising:

a recovering capacitive element that recovers a charge from the electrode of the display panel;

a switcher connected to said recovering capacitive element;

a first interconnector connected to said switcher; and

a frequency reducer having a capacitive element connected in parallel with said switcher that is operable to reduce a resonance frequency of an LC resonance resulting from a parasitic capacitance of said switcher and an inductance component of said interconnector, wherein said charge is supplied to the electrode of the display panel from said recovering capacitive element through said switcher and said interconnector, and said charge is recovered to said recovering capacitive element from the electrode of the display panel.

4. A driving circuit that drives a display panel having an electrode, comprising:

a recovering capacitive element that recovers a charge from the electrode of the display panel;

a switcher connected to said recovering capacitive element;

an interconnector connected to said switcher; and

5 a capacitor connected in parallel with said switcher that is operable to reduce a resonance frequency of an LC resonance resulting from a parasitic capacitance of said switcher and an inductance component of said interconnection portion, wherein one of said charge is supplied to the electrode of the display panel from said recovering capacitive element through said switcher and said interconnector, and said  
10 charge is recovered to said recovering capacitive element from the electrode of said display panel.

5. A driving circuit that drives a display panel having an electrode, comprising:

15 a recovering capacitive element that recovers a charge from the electrode of the display panel;

a transistor connected to said recovering capacitive element;

an interconnector connected to said transistor; and

a frequency reducer connected in parallel with a source and a drain region of  
20 said transistor, wherein one of said charge is supplied to the electrode of said display panel from said recovering capacitive element through said transistor and said interconnector, and said charge is recovered to said recovering capacitive element from the electrode of said display panel.

6. A driving circuit that drives a display panel having an electrode, comprising:

a recovering capacitive element that recovers a charge from the electrode of the display panel;

5 a transistor connected to said recovering capacitive element;

an interconnector connected to said transistor; and

a frequency reducer having a capacitive element connected in parallel with a source and a drain of said transistor, wherein one of said charge is supplied to the electrode of the display panel from said recovering capacitive element through said transistor and said interconnector, and said charge is recovered to said recovering capacitive element from the electrode of the display panel.

7. A driving circuit that drives a display panel having an electrode, comprising:

15 a recovering capacitive element that recovers a charge from the electrode of the display panel;

a transistor connected to said recovering capacitive element;

an interconnector connected to said transistor; and

a capacitor connected in parallel with a source and a drain of said transistor, wherein one of said charge is supplied to the electrode of the display panel from said recovering capacitive element through said transistor and said interconnector, and said charge is recovered to said recovering capacitive element from the electrode of the display panel.

8. A display device, comprising:

a display panel having an electrode; and

a driver that drives the electrode of said display panel, said driver comprising:

a recovering capacitive element that recovers a charge from the  
5 electrode of said display panel;

a switcher connected to said recovering capacitive element;

an interconnector connected to said switcher, and

a frequency reducer connected in parallel with said switcher that is  
operable to reduce a resonance frequency of an LC resonance resulting from a  
10 parasitic capacitance of said switcher and an inductance component of said  
interconnector, wherein one of said charge is supplied to said electrode of said display  
panel from said recovering capacitive element through said switcher and said  
interconnector, and said charge is recovered to said recovering capacitive element  
from said electrode of said display panel.

15 9. A display device, comprising:

a display panel having an electrode; and

a driver that drives said electrode of said display panel, said driver comprising:

a recovering capacitive element that recovers a charge from said  
20 electrode of said display panel;

a switcher connected to said recovering capacitive element;

a first interconnector connected to said switcher; and

a frequency reducer having a capacitive element connected in parallel with said switcher that is operable to reduce a resonance frequency of an LC resonance resulting from a parasitic capacitance of said switcher and an inductance component of said interconnector, wherein one of said charge is supplied to said electrode of said display panel from said recovering capacitive element through said switcher and said interconnector, and said charge is recovered to said recovering capacitive element from said electrode of said display panel.

10. A display device, comprising:

a display panel having an electrode; and

a driver that drives said electrode of said display panel, said driver comprising:

a recovering capacitive element that recovers a charge from said electrode of said display panel;

a switcher connected to said recovering capacitive element;

an interconnector connected to said switching element; and

a capacitor connected in parallel with said switcher that is operable to reduce a resonance frequency of an LC resonance resulting from a parasitic capacitance of said switcher and an inductance component of said interconnection portion, wherein one of said charge is supplied to said electrode of said display panel from said recovering capacitive element through said switcher and said interconnection portion, and said charge is recovered to said recovering capacitive element from the electrode of said display panel.

11. A display device, comprising:

a display panel having an electrode; and

a driver that drives said electrode of said display panel, said driver comprising:

a recovering capacitive element that recovers a charge from said

5 electrode of said display panel;

a switcher connected said recovering capacitive element;

a transistor connected to said recovering capacitive element;

an interconnector connected to said transistor; and

a frequency reducer connected in parallel with a source and a drain of

10 said transistor, wherein one of said charge is supplied to said electrode of said display panel from said recovering capacitive element through said transistor and said interconnector, and said charge is recovered to said recovering capacitive element from said electrode of said display panel.

12. A display device, comprising:

a display panel having an electrode; and

a driver that drives said electrode of said display panel, said driver comprising:

a recovering capacitive element that recovers a charge from said  
electrode of said display panel;

20 a switcher connected to said recovering capacitive element;

a transistor connected to said recovering capacitive element;

an interconnector connected to said transistor; and

a frequency reducer having a capacitive element connected in parallel

with a source and a drain of said transistor, wherein one of said charge is supplied to said electrode of said display panel from said recovering capacitive element through said transistor and said interconnector, and said charge is recovered to said recovering capacitive element from said electrode of said display panel.

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13. A display device, comprising:

a display panel having an electrode; and

a driver that drives said electrode of said display panel, said driver comprising:

a recovering capacitive element that recovers a charge from the electrode of

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said display panel;

a switching element connected to said recovering capacitive element;

an interconnector connected to said transistor; and

a capacitor connected in parallel with a source and a drain of said transistor,

wherein one of said charge is supplied to said electrode of said display panel from

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said recovering capacitive element through said transistor and said interconnector, and said charge is recovered to said recovering capacitive element from said electrode of said display panel.